STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

Dirk Kempthorne, Governor
Toni Hardesty, Director

January 5, 2006

Certified Mail No. 7005 1160 0000 1550 0627

Ron Smith
Plant Manager
Ash Grove Cement Company
230 Cement Road
Inkom, ID 83245

RE: Facility ID No. 005-00004, Ash Grove Cement Company, Inkom
Final Tier I Operating Permit Letter

Dear Mr. Smith:

The Idaho Department of Environmental Quality (DEQ) is issuing Tier I Operating Permit No. TI-050315 for Ash Grove Cement Company in accordance with IDAPA 58.01.01.300 through 386, *Rules for the Control of Air Pollution in Idaho (Rules).*

The enclosed permit is effective immediately, summarizes the applicable requirements for your facility, and requires an annual compliance certification for all emissions units. This permit replaces Tier I Operating Permit No. 005-00004, issued December 17, 2002, the terms and conditions of which no longer apply. The enclosed operating permit is based on the information contained in your permit application, received May 16, 2005. Modifications to and/or renewal of this operating permit shall be requested in a timely manner in accordance with the *Rules.*

A representative of the Pocatello Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Dan Pitman at (208) 373-0500 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Martin Bauer, Administrator
Air Quality Division

MB/CZ/sd Permit No. TI-050315

Enclosure

AIR QUALITY
TIER I OPERATING PERMIT

State of Idaho
Department of Environmental Quality

PERMIT NO.: T1-050315
FACILITY ID No.: 005-00004
AQCR: 61 **CLASS:** A
SIC: 3241 **ZONE:** 12
UTM COORDINATE (km): 397.6 , 4738.6

1. **PERMITTEE** Ash Grove Cement Co.			
2. **PROJECT** Tier I Operating Permit			
3. **MAILING ADDRESS** 230 Cement Road	**CITY** Inkom	**STATE** ID	**ZIP** 83245
4. **FACILITY CONTACT** Ron Smith	**TITLE** Plant Manager	**TELEPHONE** (208) 775-3351	
5. **RESPONSIBLE OFFICIAL** Ron Smith	**TITLE** Plant Manager	**TELEPHONE** (208) 775-3351	
6. **EXACT PLANT LOCATION** Township 7S, Range 36, Section 28		**COUNTY** Bannock	
7. **GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS** Portland cement manufacture			

8. PERMIT AUTHORITY

This Tier I operating permit is issued pursuant to Idaho Code §39-115 and the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.300 - 386. The permittee shall comply with the terms and conditions of this permit.

This permit incorporates all applicable terms and conditions of prior air quality permits issued by the Idaho Department of Environmental Quality for the permitted source, unless the permittee emits toxic pollutants subject to state-only requirements pursuant to IDAPA 58.01.01.210, and the permittee elects not to incorporate those terms and conditions into this operating permit.

The effective date of this permit is the date of signature by DEQ on the cover page.

TONI HARDESTY, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED: **December 17, 2002**
DATE MODIFIED/AMENDED **January 5, 2006**
DATE EXPIRES: **December 17, 2007**

Table of Contents

Acronyms, Units, and Chemical Nomenclature

AGC	Ash Grove Cement
ASTM	American Society for Testing and Materials
AQCR	Air Quality Control Region
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CKD	cement kiln dust
CO	carbon monoxide
DEQ	Department of Environmental Quality
DRE	destruction and removal efficiency
dscf	dry standard cubic feet
dscfm	dry standard cubic feet per minute
EPA	U.S. Environmental Protection Agency
ESP	electrostatic precipitator
gr	grain (1 lb = 7,000 grains)
HAPS	hazardous air pollutants
IDAPA	A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pound(s) per hour
LPG	liquefied petroleum gas
MACT	Maximum Achievable Control Technology
MgO	magnesium oxide
MMBtu	million British thermal units
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
Pb	lead
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	sulfur dioxide
T/hr	ton(s) per hour
U.S.C.	United States Code
UTM	Universal Transverse Mercator
VOC	volatile organic compound

AIR QUALITY TIER II OPERATING PERMIT NUMBER: T1-050315				
Permittee:	Ash Grove Cement Co.	**Facility ID No** 005-00004	**Date Issued:**	December 17, 2002
			Date Modified/Amended:	January 5, 2006
Location:	Inkom, Idaho		**Date Expires:**	December 17, 2007
The permittee is hereby allowed to operate the equipment described herein subject to all terms and conditions of the permit.				

1. TIER I OPERATING PERMIT SCOPE

Purpose

1.1 This Tier I operating permit modifies Tier I Permit No. 005-00004, issued December 17, 2002.

1.2 This Tier I operating permit incorporates the following permits:

- Tier II Operating Permit No. 005-00004, issued December 8, 1997.
- PTC No. 005-00004, issued January 29, 1999.
- PTC No. 005-00004, issued May 17, 1999.
- PTC No. P-050314, issued November 10, 2005.

1.3 This Tier I operating permit incorporates requirements from the consent order dated June 10, 2002.

Regulated Sources

1.4 Table 1.1 lists all sources of regulated emissions in this Tier I operating permit.

Table 1.1 EMISSIONS SOURCES

Permit Conditions	Source Description	Emissions Control(s)
3	Drilling, blasting, and dozing	Partially controlled, drill includes a cyclone
4	Quarried raw materials receiving, crushing, and storage	Enclosure or water spray
5	Iron ore receiving, crushing, and storage	Enclosure or water spray
6	Silica receiving, crushing, and storage	Enclosure or water spray
7	Gypsum receiving, crushing, and storage	Enclosure or water spray
8	Storage piles	Uncontrolled
9	Silo withdrawal, conveying, and storage	Enclosure
10	No. 1 and No. 2 rotary kilns	High temperature combustion, multiclone, and electrostatic precipitator
11	No. 1 and No. 2 clinker coolers, clinker handling system, and clinker unloading	Enclosure and baghouses
12	Clinker reclaim	Enclosure and baghouses
13	Finish grinding and associated handling	Enclosure and baghouses
14	Cement loadout	Enclosure and baghouses
15	Coal handling	Partial enclosure
16	Cement kiln dust handling	Enclosure
17	Unpaved roads	Water spray
18	Paved roads	Sweeping

2. FACILITY-WIDE CONDITIONS

Table 2.1 contains a summary of requirements that apply generally to emissions units at the facility.

Table 2.1 FACILITY-WIDE APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limits/ Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
2.1	Fugitive emissions	Reasonable precautions	IDAPA 58.01.01.650-651	2.2, 2.3, 2.4, 2.11
2.5	Odorous gas, liquids or solids	No emissions that cause air pollution	IDAPA 58.01.01.775-776	2.6, 2.11
2.7	Visible emissions	20% opacity for no more than three minutes in any 60-minute period	IDAPA 58.01.01.625	2.8, 2.11
2.9	Excess emissions	Compliance with IDAPA 58.01.01.130-136	IDAPA 58.01.01.130	2.10, 2.11
2.12	Open burning	In accordance with IDAPA 58.01.01.600-616	IDAPA 58.01.01.600-616	2.11
2.13	Asbestos	Compliance with 40 CFR 61 Subpart M	40 CFR 61 Subpart M	2.11
2.14	Risk management plan	Compliance with 40 CFR 68.215(a)(2)	40 CFR 68.215(a)(2); IDAPA 58.01.01.322.11; 40 CFR 70.6(c)(5)	2.11
2.15	Air quality standards	Test methods	IDAPA 58.01.01.157	2.11, 2.16
2.16	PM_{10}, PM, NO_X, SO_2, CO, VOC, opacity	Compliance testing	IDAPA 58.01.01.157	2.11, 2.15
2.17	Fuel sulfur content	ASTM Grade 1 fuel oil - 0.3% by weight ASTM Grade 2 fuel oil - 0.5% by weight Residual fuel oil – 1.75% by weight Coal – 1% by weight	IDAPA 58.01.01.728	2.11, 2.18, 2.19
2.20	Recycling and emission reduction	Reduce emissions of Class I and Class II refrigerants in accordance with 40 CFR 82 Subpart F	40 CFR 82, Subpart F	2.11
2.21	Baghouses	Visible emissions	Consent Order, June 10, 2002	2.22, 2.23, 2.24
2.25	Water spray log	Maintain	Consent Order, June 10, 2002	2.11

Fugitive Emissions

2.1 All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.

[IDAPA 58.01.01.650-651, 5/1/94]

2.2 The permittee shall monitor and maintain records of the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive emissions.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

2.3 The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

2.4 The permittee shall conduct a weekly inspection of potential sources of fugitive emissions listed in Appendix F during daylight hours and under normal operating conditions, to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each weekly fugitive emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive emissions were present (if observed), any corrective action taken in response to the fugitive emissions, and the date the corrective action was taken.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]

Odors

2.5 No person shall allow, suffer, cause, or permit the emissions of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution.

[IDAPA 58.01.01.775-776, 5/1/94]

2.6 The permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include, at a minimum, the date each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

[IDAPA 58.01.01.322.06, 07 (state-only), 5/1/94]

Visible Emissions

2.7 No person shall discharge any air pollutant to the atmosphere from any point of emissions for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas are the only reason(s) for the failure of the emissions to comply with the requirements of this section.

[IDAPA 58.01.01.625, 4/5/00]

2.8 The permittee shall conduct a weekly facility-wide inspection of potential sources of visible emissions listed in Appendix G during daylight hours and under normal operating conditions. The visible emissions inspection shall consist of a see/no see evaluation for each potential source. If any visible emissions are present from any point of emissions, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in its annual compliance certification and in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each weekly visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

[IDAPA 58.01.01.322.06, 07, 5/1/94; IDAPA 58.01.01.322.08, 4/5/00]

Excess Emissions

2.9 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions. The provisions of IDAPA 58.01.01.130-136 shall govern in the event of conflicts between the subsections of Permit Condition 2.9 and the requirements of IDAPA 58.01.01.130-136.

2.9.1 The person responsible for or in charge of a facility during an excess emissions event shall, with all practicable speed, initiate and complete appropriate and reasonable action to correct the conditions causing such excess emissions event; to reduce the frequency of occurrence of such events; to minimize the amount by which the emissions standard is exceeded; and shall, as provided below or upon request of DEQ, submit a full report of such occurrence, including a statement of all known causes and of the scheduling and nature of the actions to be taken.

[IDAPA 58.01.01.132, 4/5/00]

2.9.2 In all cases where startup, shutdown, or scheduled maintenance of any equipment or emissions unit is expected to result or results in an excess emissions event, the owner or operator of the facility or emissions unit generating the excess emissions shall demonstrate compliance with IDAPA 58.01.01.133.01(a) through (d), including, but not limited to the following address:

[IDAPA 58.01.01.133, 4/5/00]

2.9.2.1 A prohibition of any scheduled startup, shutdown, or maintenance resulting in excess emissions shall occur during any period in which an Atmospheric Stagnation Advisory and/or a Wood Stove Curtailment Advisory has been declared by DEQ.

[IDAPA 58.01.01.133.01.a, 3/20/97]

2.9.2.2 Notifying DEQ of any startup, shutdown or scheduled maintenance event that is expected to cause an excess emissions event as soon as reasonably possible, but no later than two hours prior to the start of the excess emissions event, unless the owner or operator demonstrates to DEQ's satisfaction that a shorter advanced notice was necessary.

[IDAPA 58.01.01.133.01.b, 4/5/00]

2.9.2.3 The owner or operator of a source of excess emissions shall report and record the information required pursuant to Permit Condition 2.9.4 and 2.9.5 and IDAPA 58.01.01.135 and 136 for each excess emissions event due to startup, shutdown, or scheduled maintenance.

[IDAPA 58.01.01.133.01.c, 3/20/97]

2.9.3 In all cases where upset or breakdown of equipment or an emissions unit, or the initiation of safety measures, results or may result in an excess emissions event, the owner or operator of the facility or emissions unit generating the excess emissions shall demonstrate compliance with IDAPA 58.01.01.134.01(a) and (b) and the following:

[IDAPA 58.01.01.134, 4/5/00]

2.9.3.1 For all equipment or emissions units from which excess emissions result during upset or breakdown conditions, or for other situations that may necessitate the implementation of safety measures which cause excess emissions, the facility owner or operator shall comply with the following:

[IDAPA 58.01.01.134.02, 4/5/00]

- The owner or operator shall immediately undertake all appropriate measures to reduce and, to the extent possible, eliminate excess emissions resulting from the event and to minimize the impact of such excess emissions on the ambient air quality and public health.

[IDAPA 58.01.01.134.02.a, 4/5/00]

- The owner or operator shall notify DEQ of any upset, breakdown, or safety event that results in excess emissions. Such notification shall identify the time, specific location, equipment or emissions unit involved, and (to the extent known) the cause(s) of the occurrence. The notification shall be given as soon as reasonably possible, but no later than 24 hours after the event, unless the owner or operator demonstrates to DEQ's satisfaction that the longer reporting period was necessary.

[IDAPA 58.01.01.134.02.b, 4/5/00]

- The owner or operator shall report and record the information required pursuant to Permit Conditions 2.9.4 and 2.9.5 and IDAPA 58.01.01.135 and 136 for each excess emissions event caused by an upset, breakdown, or safety measure.

[IDAPA 58.01.01.134.02.c, 3/20/97]

2.9.3.2 During any period of excess emissions caused by upset, breakdown, or operation under facility safety measures, DEQ may require the owner or operator to immediately reduce or cease operation of the equipment or emissions unit causing the period until such time as the condition causing the excess has been corrected or brought under control. Such action by DEQ shall be taken upon consideration of the factors listed in IDAPA 58.01.01.134.03 and after consultation with the facility owner or operator.

[IDAPA 58.01.01.134.03 4/5/00]

2.9.4 A written report for each excess emissions event shall be submitted to DEQ by the owner or operator no later than 15 days after the beginning of such an event. Each report shall contain the information specified in IDAPA 58.01.01.135.02.

[IDAPA 58.01.01.135.01, 3/20/97; IDAPA 58.01.01.135.02, 4/5/00]

2.9.5 The owner or operator shall maintain excess emissions records at the facility for the most recent five-calendar-year period. These records shall be made available to DEQ upon request. The excess emissions records shall include the information requested by IDAPA 58.01.01.136.03(a) and (b) as summarized in the following:

[IDAPA 58.01.01.136.01, 02, 3/20/97; IDAPA 58.01.01.136.03, 4/5/00]

2.9.5.1 An excess emissions record book for each emissions unit or piece of equipment containing copies of all reports that have been submitted to DEQ pursuant to IDAPA 58.01.01.135 for the particular emissions unit or equipment.

[IDAPA 58.01.01.136.03.a, 4/5/00]

2.9.5.2 Copies of all startup, shutdown, and scheduled maintenance procedures and upset, breakdown, and safety preventative maintenance plans that have been developed by the owner or operator in accordance with IDAPA 58.01.01.133 and 134, and facility records as necessary to demonstrate compliance with such procedures and plans.

[IDAPA 58.01.01.136.03.b, 3/20/97; IDAPA 58.01.01.130-136, 4/5/00 (state-only; federally enforceable upon approval into the SIP); IDAPA 58.01.01.322.08.b, 3/23/98]

Reports and Certifications

2.10 All periodic reports and certifications required by this permit shall be submitted to DEQ within 30 days of the end of each specified reporting period. Excess emissions reports and notifications shall be submitted in accordance with IDAPA 58.01.01.130-136. Reports, certifications, and notifications shall be submitted to the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Pocatello Regional Office
444 Hospital Way, Suite 300
Pocatello, ID 83201
Phone: (208) 236-6160 Fax: (208) 236-6168

The periodic compliance certification required by General Provision 21 shall also be submitted within 30 days of the end of the specified reporting period to the following address:

EPA Region 10
Air Operating Permits, OAQ-107
1200 Sixth Ave.
Seattle, WA 98101

[IDAPA 58.01.01.322.08, 11, 5/1/94]

Monitoring and Recordkeeping

2.11 The permittee shall maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to the following address: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.322.07, 5/1/94]

Open Burning

2.12 The permittee shall comply with the requirements of IDAPA 58.01.01.600-616, *Rules for Control of Open Burning.*

[IDAPA 58.01.01.600-616, 5/1/94]

Renovation/Demolition

2.13 The permittee shall comply with all applicable portions of 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

[40 CFR 61, Subpart M]

Regulated Substances for Accidental Release Prevention

2.14 An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR Part 68 no later than the latest of the following dates:

- Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR 68.130.

- The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR 68.10 (a)]

Test Methods

2.15 If testing is required, the permittee shall use the test methods described in Table 2.2 to measure the pollutant emissions.

Table 2.2 EPA REFERENCE TEST METHODS

Pollutants	Test Methods*	Special Conditions
PM_{10}	EPA Method 201.a EPA Method 202	
PM	EPA Method 5	
NO_X	EPA Method 7	
SO_2	EPA Method 6	
CO	EPA Method 10	
VOC	EPA Method 25	
Opacity	EPA Method 9	If an NSPS source, IDAPA 58.01.01.625 and Method 9; otherwise, IDAPA 58.01.01.625 only.
Total Organic HAPs	EPA Method 25A	Total emissions are assumed to be one HAP.
Benzo(a)pyrene	EPA Method TO-14*	
Dioxin/Furan	EPA Method 23	
Lead	EPA Method 29	

* Or DEQ-approved alternative in accordance with IDAPA 58.01.01.157

[IDAPA 58.01.01.322.09, 5/1/94]

Compliance Testing

2.16 If testing is required, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test or shorter time period as provided in a permit, order, consent decree, or by DEQ approval. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests such testing not be performed on weekends or state holidays.

All testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, prior to conducting any compliance test, the permittee is strongly encouraged to submit in writing to DEQ, at least 30 days in advance, the following for approval:

- The type of test method to be used
- Any extenuating or unusual circumstances regarding the proposed test
- The proposed schedule for conducting and reporting the test

The permittee shall submit a compliance test report for the respective test to DEQ within 30 days following the date on which a compliance test required by this permit is concluded. The compliance test report shall include all process operating data collected during the test period as well as the test results, raw test data, and associated documentation, including any approved test protocol.

The proposed test date(s), test date rescheduling notice(s), compliance test report, and all other correspondence shall be sent to the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Pocatello Regional Office
444 Hospital Way Suite 300
Pocatello, ID 83201
Phone: (208) 236-6160 Fax: (208) 236-6168

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

Sulfur Content

2.17 No person shall sell, distribute, use or make available for use, any residual fuel oil containing more than 1.75% sulfur by weight.

[IDAPA 58.01.01.727.02, 5/1/94]

2.18 No person shall sell, distribute, use, or make available for use any distillate fuel oil containing more than the following percentages of sulfur:

- ASTM Grade 1 fuel oil - 0.3% by weight.
- ASTM Grade 2 fuel oil - 0.5% by weight.

[IDAPA 58.01.01.728, 5/1/94]

2.19 No person shall sell, distribute, use or make available for use, any coal containing greater than 1% sulfur by weight.

[IDAPA 58.01.01.729, 5/1/94]

2.20 The permittee shall maintain documentation of supplier verification of distillate fuel oil sulfur content, residual fuel oil sulfur content, and coal sulfur content on an as-received basis.

[IDAPA 58.01.01.322.07, 5/1/94]

Recycling and Emissions Reductions

2.21 The permittee shall comply with applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, Recycling and Emissions Reduction.

[40 CFR 82, Subpart F]

Baghouse Requirements

2.22 The permittee shall perform a one-minute daily visible emissions inspection using EPA Method 22 (contained in 40 CFR Part 60) on each baghouse located at the facility. Each daily visible emissions inspection shall be performed to determine whether visible emissions are present either at the baghouse stack outlet or the baghouse structure itself. If visible emissions are observed at the baghouse stack outlet, Ash Grove shall then perform a six-minute visible emissions observation using the test methods and procedures specified in IDAPA 58.01.01.625.04.

[Consent Order, Condition 13, 6/10/02]

2.23 The permittee shall perform corrective maintenance within 48 hours of observing any visible emissions from any baghouse stack or baghouse structure.

[Consent Order, Condition 14, 6/10/02]

2.24 The permittee shall submit for DEQ approval a copy of the daily log sheet to be used to record visible emissions observation and maintenance information for each of the baghouses. The daily log for each of the baghouses shall include the following:

2.24.1 The results of the daily visible emissions inspections, observations, and an attached six-minute visible emissions observation form for any visible emissions observations performed pursuant to Permit Condition 2.22.

2.24.2 The time and date when any maintenance was performed in response to a visible emissions inspection or observation.

2.24.3 A description of any specific problems that caused any visible emissions.

2.24.4 A description of any specific maintenance that was performed on the baghouse to sufficiently reduce or eliminate the visible emissions, or an explanation of why no maintenance was necessary.

2.24.5 If corrective maintenance was performed more than 48 hours after detection of visible emissions from a baghouse, the log shall include a description of the specific reason the maintenance was not performed sooner.

[Consent Order, Condition 15, 6/10/02]

Dust Collector Maintenance Plan

2.25 The permittee shall operate and maintain the baghouses at the facility in accordance with the Dust Collector Maintenance Plan. The plan is provided in Appendix E. The plan specifies pressure drop ranges for operation of the baghouses at the facility. The plan is a condition of operation of the facility. The content of the plan may only be modified with written approval of DEQ. Modifications of the plan shall not require modification of this permit and any approved modification of the plan shall become a condition of this permit as though fully incorporated therein. Noncompliance with the pressure drop ranges set forth in the plan shall be deemed a violation of this permit. Ash Grove shall, at all times, maintain documentation showing compliance with the pressure drop ranges set forth in the plan and shall make such documentation available to DEQ upon request.

[Consent Order, Condition 17, 6/10/02]

Water Spray Log

2.26 The permittee shall use the daily log sheet, attached as Appendix D, or any other DEQ approved form, to record hours of operation of the water sprays for specific areas of the plant. The permittee shall maintain the records onsite and may maintain the records in electronic format.

[Consent Order, Condition 18, 6/10/02]

3. DRILLING, BLASTING, AND DOZING

Summary Description

The following is a narrative description of the drilling, blasting, and dozing emissions regulated in this Tier I operating permit. This description is for informational purposes only.

Holes are drilled into limestone for the placement of explosives. The explosives are detonated, and the blast loosens the rock so that a dozer can move the blasted material. Emissions associated with the drilling, blasting, and dozing of limestone are uncontrolled.

Table 3.1 describes the devices used to control drilling, blasting, and dozing emissions.

Table 3.1 EMISSIONS UNITS AND EMISSIONS CONTROL DEVICES

Source Code	Emissions Unit(s) / Process(es)	Emissions Control Device
F1	Drilling	Partially controlled, drill includes a cyclone
F2	Blasting	Uncontrolled
F3	Dozing	Uncontrolled

Table 3.2 contains a summary of the requirements that apply to the drilling, blasting, and dozing processes. Specific permit requirements are listed below Table 3.2.

Table 3.2 APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
3.1, 3.2	Fugitive emissions	Reasonable control PM – 5.39 lb/hr, 29.34 T/yr PM_{10} – 1.78 lb/hr, 3.09 T/yr <u>Process rate</u> 435,708 tons/yr of limestone (12-month rolling average)	IDAPA 58.01.01.650	2.2, 2.3, 2.4, 3.3

Permit Limits / Standard Summary

3.1 <u>Fugitive Emissions</u>

The PM and PM_{10} fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651. The PM emissions shall not exceed 5.39 lb/hr and 29.34 T/yr, and PM_{10} emissions shall not exceed 1.78 lb/hr and 3.09 T/yr.

[Tier II Permit No. 005-00004, Condition 2.1, 12/8/97; IDAPA 58.01.01.650, 5/1/94]

Operating Requirements

3.2 Process Rate

The process rate shall not exceed 435,708 tons of limestone rock drilled, blasted, or dozed per year.

[IDAPA 58.01.01.322.06.a, 5/1/94]

Monitoring & Recordkeeping Requirements

3.3 The permittee shall monitor and record the following parameters:

- Tons of rock blasted
- Dozer operating hours per day

A report shall be made on each blast performed.

[Tier II Permit No. 005-00004, Condition 3.1, 12/8/97]

4. QUARRIED RAW MATERIALS RECEIVING, CRUSHING, AND STORAGE

Summary Description

The following is a narrative description of the quarried raw materials receiving, crushing, and storage regulated in this Tier I operating permit. This description is for informational purposes only.

Quarried clay, shale, and limestone are reduced in size by crushing and screening. Quarried clay, shale, and limestone are fed onto a feed pad that transfers the material to a jaw crusher for size reduction. The crushed raw material is transferred to the No. 1 screen by inclined belts. Raw material that cannot pass through the screen is reintroduced to the system by transferring it to a hammer mill for crushing and reconveying it to the screen. Material passing the screen is transferred to a cross country belt that either recycles the stockpiled rock through the entire crushing and screening process by reintroducing the material at the jaw crusher, or transfers it to belts which place the material into the raw silos from which it is conveyed to the raw mill.

Table 4.1 describes the devices used to control quarried raw materials receiving, crushing, and storage emissions.

Table 4.1 EMISSIONS UNITS AND EMISSIONS CONTROL DEVICES

Source Codes	Emissions Unit(s) / Process(es)	Emissions Control Device
F4	Loader to feeder	Partial Enclosure
F5	Feeder to jaw crusher	Enclosure
F6	Jaw crusher to inclined belt	Enclosure
F7	No. 1 incline belt to No. 2 incline belt	Partial Enclosure
F8	No. 2 incline belt to No. 3 incline belt	Water spray or residual moisture
F9	No. 3 incline belt to screen No. 2	Water spray or residual moisture
F10	Screen No. 2 to cross country belt	Water spray or residual moisture
F11	Screen No. 2 to cone crusher	Water spray or residual moisture
F12	Cone crusher to No. 4 incline belt	Water spray or residual moisture
F13	No. 4 incline belt to No. 2 incline belt	Water spray or residual moisture
F14	No. 2 incline belt to screen No. 1	Enclosure
F15	Screen No. 1 to cross country belt	Enclosure
F16	Screen No. 1 to hammer mill	Enclosure
F17	Hammer Mill to No. 1 incline belt	Enclosure

Table 4.2 contains a summary of the requirements that apply to quarried raw materials receiving, crushing, and storage. Specific permit requirements are listed below Table 4.2.

Table 4.2 REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
4.1	Fugitive Emissions	Reasonable control PM – 23.59 lb/hr, 17.75 T/yr PM_{10} – 10.51 lb/hr, 7.82 T/yr Process rate 200 T/hr (monthly average) 435,708 T/yr (12 month rolling average)	IDAPA 58.01.01.650, Tier II Permit No. 005-00004	2.2, 2.3, 2.4, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8
4.2	PM	Process weight	IDAPA 58.01.01.702	None required

Permit Limits / Standard Summary

4.1 **Fugitive Emissions**

The PM and PM_{10} fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651. The PM emissions shall not exceed 23.59 lb/hr and 17.75 T/yr, and PM_{10} emissions shall not exceed 10.51 lb/hr and 7.82 T/yr.

[Tier II Permit No. 005-00004, Condition 2.1, 12/8/97; IDAPA 58.01.01.650, 5/1/94]

4.2 No person shall emit to the atmosphere from any process or process equipment commencing operation prior to October 1, 1979, PM in excess of the amount shown by the following equations, where E is the allowable emissions from the entire source in pounds per hour, and PW is the process weight in pounds per hour.

a. If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.60}$$

b. If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

[IDAPA 58.01.01.702, 4/5/00]

Operating Requirements

4.3 The process rate shall not exceed 200 tons of limestone, clay, and shale per hour on a monthly average basis. The process rate shall not exceed 435,708 tons of limestone, clay, and shale per year based on a 12-month rolling average.

[Tier II Permit No. 005-00004, Condition 4.1, 12/8/97]

Monitoring & Recordkeeping Requirements

4.4 The permittee shall record the hours of operation per day of the water spray.

4.5 The permittee shall record the tons of raw material handled by raw material receiving, crushing, and storage each day.

4.6 The permittee shall record the hours of operation per day of raw material receiving, crushing, and storage.

4.7 The permittee shall record, in a daily report, the information requested in Permit Conditions 4.4, 4.5, and 4.6. The records shall be maintained on file by the permittee for a minimum period of five years and shall be made available to DEQ representatives upon request.

[Tier II Permit No. 005-00004, Conditions 3.1, 3.2, 3.3, 5, 12/8/97; IDAPA 58.01.01.322.07.c, 5/1/94]

4.8 Using the information recorded in Permit Condition 4.7, once each month, the permittee shall calculate the average hourly process rate of raw materials (clay, shale, and limestone) for the previous month and the total tons of raw materials processed based on a 12-month rolling average.

[IDAPA 58.01.01.322.07, 5/1/94]

5. IRON ORE RECEIVING, CRUSHING, AND STORAGE

Summary Description

The following is a narrative description of the iron ore receiving, crushing, and storage processes regulated in this Tier I operating permit. This description is for informational purposes only.

Iron ore from an outside source is belly/end dumped and stockpiled in the quarry. A front-end loader transfers the stockpiled iron ore onto a feed pad for transfer to a jaw crusher. The iron ore is crushed and conveyed to the No. 1 screen. The screened iron ore is then conveyed to the iron ore silo for storage. From the silo, the iron ore is conveyed to the raw mill.

Table 5.1 describes the control devices used in controlling emissions from the sources regulated in this permit.

Table 5.1 EMISSIONS UNITS AND EMISSIONS CONTROL DEVICES

Source Codes	Emissions Unit(s) / Process(es)	Emissions Control Device
F4	Loader to feeder	Partial enclosure
F5	Feeder to jaw crusher	Enclosure
F6	Jaw crusher to inclined belt	Enclosure
F7	No. 1 incline belt to No. 2 incline belt	Partial enclosure
F8	No. 2 incline belt to No. 3 incline belt	Water spray or residual moisture
F9	No. 3 incline belt to screen No. 2	Water spray or residual moisture
F10	Screen No. 2 to cross country belt	Water spray or residual moisture
F11	Screen No. 2 to cone crusher	Water spray or residual moisture
F12	Cone crusher to No. 4 incline belt	Water spray or residual moisture
F13	No. 4 incline belt to No. 2 incline belt	Water spray or residual moisture
F14	No. 2 incline belt to screen No. 1	Enclosure
F15	Screen No. 1 to cross country belt	Enclosure
F16	Screen No. 1 to hammer mill	Enclosure
F17	Hammer mill to No. 1 incline belt	Enclosure

Table 5.2 contains a summary of the requirements that apply to iron ore receiving, crushing, and storage. Specific permit requirements are listed below Table 5.2.

Table 5.2 APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
5.1, 5.4	Fugitive emissions	Reasonable control PM – 2.26 lb/hr, 0.04 T/yr PM_{10} – 1.08 lb/hr, 0.02 T/yr Process rate 200 T/hr (monthly average) 7,000 T/yr (12-month rolling average)	IDAPA 58.01.01.650	2.2, 2.3, 2.4, 5.5, 5.6, 5.7, 5.8, 5.9
5.2	PM	Process weight	IDAPA 58.01.01.702	None required
5.3	Visible emissions	10% Opacity	40 CFR 60.62(c)	2.8

Permit Limits / Standard Summary

5.1 **Fugitive Emissions**

The PM and PM_{10} fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651. The PM emissions shall not exceed 2.26 lb/hr and 0.04 T/yr, and PM_{10} emissions shall not exceed 1.08 lb/hr and 0.02 T/yr.

[Tier II Permit No. 005-00004, Condition 2.1, 11/27/02, IDAPA 58.01.01.650, 5/1/94]

5.2 No person shall emit into the atmosphere from any process or process equipment commencing operation prior to October 1, 1979, PM in excess of the amount shown by the following equations, where E is the allowable emissions from the entire source in pounds per hour, and PW is the process weight in pounds per hour.

a. If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.6}$$

b. If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

[IDAPA 58.01.01.702, 4/5/00]

5.3 Visible emissions from conveyor transfer points shall not exceed 10% opacity.

[Tier II Permit No. 005-00004, 11/27/02; 40 CFR 60.62(c)]

Operating Requirements

5.4 The process rate shall not exceed 200 tons of iron ore per hour on a monthly average basis. The process rate shall not exceed 7,000 tons of iron ore per year based on a 12-month rolling average.

[Tier II Permit No. 005-00004, Condition 4.1, 11/27/02]

Monitoring & Recordkeeping Requirements

5.5 The permittee shall record the hours of operation per day of the water spray.

5.6 The permittee shall record the tons of iron ore handled by iron ore receiving, crushing and storage each day.

5.7 The permittee shall record the hours of operation per day of iron ore receiving, crushing, and storage.

5.8 The permittee shall record, in a daily report, the information requested in Permit Conditions 5.5, 5.6, and 5.7.

[Tier II Permit No. 005-00004, Conditions 3.1, 3.2, 3.3, 5, 12/8/97]

5.9 Using the information recorded in Permit Condition 5.8, once each month, the permittee shall calculate the average hourly process rate of iron ore for the previous month and the total tons of iron ore processed based upon a 12-month rolling average.

[IDAPA 58.01.01.322.07, 5/1/94]

6. SILICA RECEIVING, CRUSHING, AND STORAGE

Summary Description

The following is a narrative description of the silica receiving, crushing, and storage processes regulated in this Tier I operating permit. This description is for informational purposes only.

Silica from an outside source is belly/end dumped and stockpiled in the quarry. A front-end loader transfers the stockpiled silica onto a feed pad for transfer to a jaw crusher. The silica is crushed and conveyed to the No. 2 screen. Silica that cannot be screened is recycled through the system by transfer to a cone crusher for crushing and reconveying to the No. 2 screen. The silica passing the screen is conveyed by a cross country belt that either recycles the stockpiled material through the entire crushing and screening process by reintroducing the crushed material at the feed pad, or transfers it to belts which place the material in the raw silos. From the raw silos, the silica is conveyed into the raw mill by a feed belt.

Table 6.1 describes the devices used to control emissions from silica receiving, crushing, and storage.

Table 6.1 EMISSIONS UNITS AND EMISSIONS CONTROL DEVICES

Source Codes	Emissions Unit(s) / Process(es)	Emissions Control Device
F4	Loader to feeder	Partial enclosure
F5	Feeder to jaw crusher	Enclosure
F6	Jaw crusher to No. 1 inclined belt	Enclosure
F7	No. 1 inclined belt to No. 2 inclined belt	Partial Enclosure
F8	No. 2 inclined belt to No. 3 inclined belt	Enclosure
F9	No. 3 inclined belt to screen No. 2	Enclosure
F10	Screen No. 2 to cross country belt	Enclosure
F11	Screen No. 2 to cone crusher	Enclosure
F12	Cone crusher to No. 4 inclined belt	Enclosure
F13	No. 4 inclined belt to No. 2 inclined belt	Enclosure
F18	Cross country belt to belt B	Water spray or residual moisture inherent in the rock
F19	Belt B to belt C	Water spray or residual moisture inherent in the rock
F20	Belt C to silos (3)	Enclosure
F24	Cross country belt to discharge chute	Water spray or residual moisture inherent in the rock
F25	Discharge chute to ground	Water spray or residual moisture inherent in the rock

Table 6.2 contains a summary of the requirements that apply to silica receiving, crushing, and storage. Specific permit requirements are listed below Table 6.2.

Table 6.2 APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
6.1, 6.3	Fugitive emissions	Reasonable control PM – 10.18 lb/hr, 2.63 T/yr PM_{10} – 4.52 lb/hr, 1.18 T/yr Process rate 96 T/hr (monthly average) 43,571 T/yr (12-month rolling average)	IDAPA 58.01.01.650	6.4, 6.5, 6.6, 6.7, 6.8
6.2	PM	Process weight	IDAPA 58.01.01.702	None required

Permit Limits / Standard Summary

6.1 Fugitive Emissions

The PM and PM_{10} fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651. The PM emissions shall not exceed 10.18 lb/hr and 2.63 T/yr, and PM_{10} emissions shall not exceed 4.52 lb/hr and 1.18 T/yr.

[Tier II Permit No. 005-00004, Condition 2.1, 12/8/97; IDAPA 58.01.01.650, 5/1/94]

6.2 No person shall emit to the atmosphere from any process or process equipment commencing operation prior to October 1, 1979, PM in excess of the amount shown by the following equations, where E is the allowable emissions from the entire source in pounds per hour, and PW is the process weight in pounds per hour.

a. If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.6}$$

b. If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

[IDAPA 58.01.01.702, 4/5/00]

Operating Requirements

6.3 The process rate shall not exceed 96 tons of silica per hour on a monthly average basis. The process rate shall not exceed 43,571 tons of silica per year based on a 12-month rolling average.

[Tier II Permit No. 005-00004, Condition 4.1, 12/8/97]

Monitoring & Recordkeeping Requirements

6.4 The permittee shall record the hours of operation per day of the water spray.

6.5 The permittee shall record the tons of silica handled by silica receiving, crushing, and storage each day.

6.6 The permittee shall record the hours of operation per day of silica receiving, crushing, and storage.

6.7 The permittee shall record, in a daily report, the information requested in Permit Conditions 6.4, 6.5, and 6.6.

[Tier II Permit No. 005-00004, Conditions 3.1, 3.2, 3.3, 5, 12/8/97]

6.8 Using the information recorded in Permit Condition 6.7, once each month, the permittee shall calculate the average hourly process rate of silica for that month and the total tons of silica processed based upon a 12-month rolling average.

[IDAPA 58.01.01.322.07, 5/1/94]

7. GYPSUM RECEIVING, CRUSHING, AND STORAGE

Summary Description

The following is a narrative description of the gypsum receiving, crushing, and storage processes regulated in this Tier I operating permit. This description is for informational purposes only.

Gypsum from an outside source is belly/end dumped and stockpiled in the quarry. A front-end loader transfers the stockpiled gypsum onto a feed pad for transfer to a jaw crusher. The gypsum is crushed and conveyed to the No. 1 screen. Gypsum that cannot be screened is recycled through the system by transfer to a hammer mill for crushing, and reconveying to the No. 1 screen. The screened gypsum is then conveyed by a cross country belt to a gypsum belt that transfers it to a gypsum bin for storage.

Table 7.1 describes the devices used to control emissions from gypsum receiving, crushing, and storage.

Table 7.1 EMISSIONS UNITS AND EMISSIONS CONTROL DEVICES

Source Codes	Emissions Unit(s) / Process(es)	Emissions Control Device
F4	Loader to feeder	Partial enclosure
F5	Feeder to jaw crusher	Enclosure
F6	Jaw crusher to No. 1 inclined belt	Enclosure
F7	No. 1 inclined belt to No. 2 inclined belt	Partial enclosure
F14	No. 2 inclined belt to screen No. 1	Enclosure
F15	Screen No. 1 to cross country belt	Enclosure
F16	Screen No. 1 to hammer mill	Enclosure
F17	Hammer mill to No. 1 inclined belt	Enclosure
F21	Cross country belt to gypsum belt	Water spray or residual moisture inherent in the rock
F22	Gypsum belt to chute	Water spray or residual moisture inherent in the rock
F23	Chute to gypsum bin	Water spray or residual moisture inherent in the rock

Table 7.2 contains a summary of the requirements that apply to the gypsum receiving, crushing, and storage process. Specific permit requirements are listed below Table 7.2.

Table 7.2 APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
7.1, 7.3	Fugitive emissions	Reasonably controlled PM – 22.86 lb/hr, 1.18 T/yr PM_{10} – 10.21 lb/hr, 0.54 T/yr Process rate 200 T/hr (monthly average) 22,737 T/yr (12-month rolling average)	IDAPA 58.01.01.650	2.2, 2.3, 2.4, 7.4, 7.5, 7.6, 7.7, 7.8
7.2	PM	Process weight	IDAPA 58.01.01.702	None required

Permit Limits / Standard Summary

7.1 **Fugitive Emissions**

The PM and PM_{10} fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651. The PM emissions shall not exceed 22.86 lb/hr and 1.18 T/yr, and PM_{10} emissions shall not exceed 10.21 lb/hr and 0.54 T/yr.

[Tier II Permit No. 005-00004, Condition 2.1, 12/8/97; IDAPA 58.01.01.650, 5/1/94]

7.2 No person shall emit to the atmosphere from any process or process equipment commencing operation prior to October 1, 1979, PM in excess of the amount shown by the following equations, where E is the allowable emissions from the entire source in pounds per hour, and PW is the process weight in pounds per hour.

a. If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.6}$$

b. If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

[IDAPA 58.01.01.702, 4/5/00]

Operating Requirements

7.3 The process rate shall not exceed 200 tons of gypsum per hour on a monthly average basis. The process rate shall not exceed 22,737 tons of gypsum per year based on a 12-month rolling average.

[Tier II Permit No. 005-00004, Condition 4.1, 12/8/97]

Monitoring & Recordkeeping Requirements

7.4 The permittee shall record the hours of operation per day of the water spray.

7.5 The permittee shall record the tons of gypsum handled by gypsum receiving, crushing, and storage each day.

7.6 The permittee shall record the hours of operation per day of gypsum receiving, crushing, and storage.

7.7 The permittee shall record, in a daily report, the information requested in Permit Conditions 7.4, 7.5, and 7.6.

[Tier II Permit No. 005-00004, Conditions 3.1, 3.2, 3.3, 5, 12/8/97]

7.8 Using the information recorded in Permit Condition 7.7, once each month, the permittee shall calculate the average hourly process rate of gypsum for the previous month and the total tons of gypsum processed based upon a 12-month rolling average.

[IDAPA 58.01.01.322.07, 5/1/94]

8. STORAGE PILES

Summary Description

The following is a narrative description of the storage piles regulated in this Tier I operating permit. This description is for informational purposes only.

Limestone (high and low), gypsum, iron ore, silica, and cement kiln dust are stored in the quarry in piles. Coal is stored at the plant in a pile.

Table 8.1 describes the devices used to control storage pile emissions.

Table 8.1 EMISSIONS UNITS AND EMISSIONS CONTROL DEVICES

Pile Number	*Emissions Unit(s) / Process(es)*	*Emissions Control Device*
1	Limestone high	Uncontrolled
2	Limestone low	Uncontrolled
3	Gypsum	Uncontrolled
4	Iron ore	Uncontrolled
5	Coal	Uncontrolled
6	Silica	Uncontrolled
7	CKD storage pile	Uncontrolled

Table 8.2 contains a summary of the requirements that apply to the storage piles. Specific permit requirements are listed below Table 8.2.

Table 8.2 APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
8.1	Fugitive emissions	Reasonable control PM – 5.39 lb/hr, 33.25 T/yr PM_{10} – 1.78 lb/hr, 3.29 T/yr <u>Storage pile footprint area</u> Limestone high – 2.0 acres Limestone low – 2.0 acres Gypsum – 0.5 acre Iron ore – 0.4 acre Coal – 1.0 acre Silica – 1.0acre CKD – 1.0 acre	IDAPA 58.01.01.650	2.2, 2.3, 2.4, 8.2, 8.3. 8.4, 8.5, 8.6, 8.7, 8.8

Permit Limits / Standard Summary

8.1 Fugitive Emissions

The PM and PM_{10} fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651. The PM emissions shall not exceed 5.39 lb/hr and 33.25 T/yr, and PM_{10} emissions shall not exceed 1.78 lb/hr and 3.29 T/yr.

[Tier II Permit No. 005-00004, Condition 2.1, 12/8/97; IDAPA 58.01.01.650, 5/1/94]

Operating Requirements

8.2 The limestone high and limestone low storage piles shall be limited to a total footprint area of 4 acres and an annual material throughput of 435,708 T/yr.

8.3 The gypsum storage pile shall be limited to a footprint area of 0.5 acre and an annual material throughput of 22,737 T/yr.

8.4 The iron ore storage pile shall be limited to a footprint area of 0.4 acre and an annual material throughput of 7,000 T/yr.

8.5 The coal storage pile shall be limited to a footprint area of 1 acre and an annual material throughput of 70,000 T/yr.

8.6 The silica storage pile shall be limited to a footprint area of 1 acre and an annual material throughput of 43,571 T/yr.

8.7 The active cement kiln dust storage pile shall be limited to a footprint area of 1 acre and an annual material throughput of 4,500 T/yr.

[Tier II Permit No. 005-00004, Condition 3, 12/8/97]

Monitoring & Recordkeeping Requirements

8.8 Once each year the permittee shall monitor and record the footprint area and tons of material throughput of the limestone high, limestone low, gypsum, iron ore, coal, silica, and active cement kiln dust storage piles.

[IDAPA 58.01.01.322.06, 07; 5/1/94]

9. SILO WITHDRAWAL, CONVEYING, AND STORAGE

Summary Description

The following is a narrative description of the silo withdrawal, conveying, and storage processes regulated in this Tier I operating permit. This description is for informational purposes only.

Limestone, silica, and iron ore are transferred from silo storage to mill No. 4 (raw mill). Mill No. 4 processes the limestone, silica, and iron ore with water into a raw meal (slurry). Mill No. 3 may be used as a back up raw mill only when mill No. 4 is not operating.

Table 9.1 describes the devices used to control emissions from silo withdrawal, conveying, and storage.

Table 9.1 EMISSIONS UNITS AND EMISSIONS CONTROL DEVICES

Source Codes	Emissions Unit(s) / Process(es)	Emissions Control Device
F26	Silo feeder to feed belt	Enclosed
F27	Silo feeder to feed belt	Enclosed
F28	Silo feeder to feed belt	Enclosed
F29	Silo feeder to feed belt	Enclosed
F30	Feed belt to mill No. 4 (raw mill)	Enclosed
F31	Mill No. 4 to slurry tank	Process water
F32	Feed belt to mill No. 3 (auxiliary raw mill)	Enclosed
F33	Mill No. 3 to slurry tank	Process water

Table 9.2 contains a summary of the requirements that apply to the silo withdrawal, conveying, and storage processes. Specific permit requirements are listed below Table 9.2.

Table 9.2 APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
9.1, 9.3	Fugitive emissions	Reasonable control PM – 0.42 lb/hr, 1.48 T/yr PM_{10} – 0.19 lb/hr, 0.68 T/yr Process rate 60 tons raw meal per hour (monthly average) 450,000 tons raw meal per year (12-month rolling average)	IDAPA 58.01.01.650	2.2, 2.3, 2.4, 9.4, 9.5, 9.6, 9.7
9.2	PM	Process weight	IDAPA 58.01.01.702	None required

Permit Limits / Standard Summary

9.1 **Fugitive Emissions**

The PM and PM_{10} fugitive emissions shall be reasonably controlled, as required in IDAPA 58.01.01.650 and 651. The PM emissions shall not exceed 0.42 lb/hr and 1.48 T/yr, and PM_{10} emissions shall not exceed 0.19 lb/hr and 0.68 T/yr.

[Tier II Permit No. 005-00004, Condition 2.1, 12/8/97; IDAPA 58.01.01.650, 5/1/94]

9.2 No person shall emit to the atmosphere from any process or process equipment commencing operation prior to October 1, 1979, PM in excess of the amount shown by the following equations, where E is the allowable emissions from the entire source in pounds per hour, and PW is the process weight in pounds per hour.

a. If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.6}$$

b. If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

[IDAPA 58.01.01.702, 4/5/00]

Operating Requirements

9.3 The process rate of the raw mill shall not exceed 60 tons of raw meal per hour on an average monthly basis. The process rate shall not exceed 450,000 tons of raw meal per year based on a 12-month rolling average.

[Tier II Permit No. 005-00004, Condition 4, 12/8/97]

Monitoring & Recordkeeping Requirements

9.4 Each day, the permittee shall record the tons of limestone, silica, and iron ore transported to and processed by the raw mill.

[Tier II Permit No. 005-00004, Permit Condition 3, 12/8/97]

9.5 Each day, the permittee shall record the hours of operation of the raw mill No. 3 and raw mill No. 4.

[IDAPA 58.01.01.322.07, 5/1/94]

9.6 The permittee shall record, in a daily report, the information requested in Permit Conditions 9.4 and 9.5.

[Tier II Permit No. 005-00004, Permit Condition 5, 12/8/97]

9.7 Once each month, the permittee shall calculate the average hourly process rate of the raw mill for the previous month and the total tons of raw mill per year based on a 12-month rolling average using the information recorded in Permit Condition 9.6.

[IDAPA 58.01.01.322.07, 5/1/94]

10. NO. 1 AND NO. 2 ROTARY KILNS

Summary Description

The following is a narrative description of the rotary kilns regulated in this Tier I operating permit. This description is for informational purposes only.

The No. 1 and No. 2 rotary kilns process clinker for the production of Portland cement. The raw materials used in this process include limestone, silica, iron ore, and shale. The following five fuels are used to fire the kilns: natural gas, used oil, petroleum coke, whole tire/TDF, and coal. In the kilns, the combustion gases flow countercurrent to the clinker flow and exit through the emissions control equipment. A multiclone and electrostatic precipitator in series control each kiln. High temperatures and long residence time in the kilns have been demonstrated to create a destruction and removal efficiency (DRE) greater than 99.99% for organic compounds. The cement kiln process has shown that over 99% of the metals chemically recombine into the complex compounds that make up the matrix of clinker.

Table 10.1 describes the devices used to control emissions from kilns No.1 and No.2.

Table 10.1 EMISSIONS UNITS AND EMISSIONS CONTROL DEVICES

Source Codes	Emissions Unit(s) / Process(es)	Emissions Control Device
C1	Kiln No. 1	Multiclone, electrostatic precipitator
C2	Kiln No. 2	Multiclone, electrostatic precipitator

Table 10.2 contains a summary of the requirements that apply to the No. 1 and No. 2 kilns. Specific permit requirements are listed below Table 10.2.

Table 10.2 APPLICABLE REQUIREMENTS SUMMARY

Permit Conditions	Affected Unit	Parameter	Permit Limit / Standard Summary	Applicable Requirements Reference	Monitoring and Recordkeeping Requirements
10.1.1	Kiln No. 1	PM PM_{10} SO_2 NO_x VOCs CO Total Lead Benzo(a)pyrene	PM – 11.61 lb/hr, 50.83 T/yr PM_{10} – 9.86 lb/hr, 43.21 T/yr SO_2 – 24 lb/hr, 100 T/yr NO_x – 144 lb/hr, 576 T/yr VOCs – 5.92 lb/hr, 25.9 T/yr CO - 234.4 lb/hr, 937.7 T/yr Total Lead – 0.27 lb/hr, 1.08 T/yr Benzo(a)pyrene – 8.5E-3 lb/hr, 3.4E-2 T/yr	Tier II Permit No. 005-00004, Conditions 2.1.1, 2.1.2	10.5, 10.6, 10.10, 10.11, 10.12, 10.13, 10.14, 10.15, 10.16, 10.18, 10.19, 10.20
10.1.1	Kiln No. 2	PM PM_{10} SO_2 NO_x VOCs CO Total Lead Benzo(a)pyrene	PM – 16.87 lb/hr, 73.91 T/yr PM_{10} – 14.34 lb/hr, 62.82 T/yr SO_2 – 24 lb/hr, 100 T/yr NO_x – 193 lb/hr, 751 T/yr VOCs – 6.96 lb/hr, 30.5 T/yr CO - 275.8 lb/hr, 1103.2 T/yr Total Lead – 0.31 lb/hr, 1.24 T/yr Benzo(a)pyrene – 1.0E-2 lb/hr, 4.0E-2 T/yr	Tier II Permit No. 005-00004, Conditions 2.1.1, 2.1.2	10.5, 10.6, 10.10, 10.11, 10.12, 10.13, 10.14, 10.15, 10.16, 10.18, 10.19, 10.20
10.1.2	Kiln No. 1 and No. 2	Visible emissions	20% opacity for no more than three minutes in any 60-minute period	Tier II Permit No. 005-00004, Conditions 2.1.3; IDAPA 58.01.01.625; 40 CFR 60.62	10.23, 10.28
10.2	Kiln No. 1 and No. 2	Particulate matter	Process weight	IDAPA 58.01.01.702	None required
10.3	Kiln No. 1 and No. 2	Dioxin/Furan (D/F)	0.20 ng[(1)] TEQ[(2)] per dscm[(3)] corrected to 7% oxygen; or 0.40 ng TEQ per dscm corrected to 7% oxygen, when the average of the performance test run temperatures at the inlet to the PMCD[(4)] is 204° C or less Operate such that the three-hour rolling average PMCD inlet temperature is no greater than the temperature established at performance test	40 CFR 63.1343(d)	10.7, 10.8, 10.9, 10.17, 10.21, 10.22, 10.25, 10.26, 10.27
10.4	Kiln No. 1 and No. 2	Particulate matter	0.3 lb/ton of feed	40 CFR 60.62	10.24

(1) Nanogram – one billionth of a gram

(2) International method of expressing *toxicity equivalents* for dioxins and furans as defined in U.S. EPA, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and –dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989

(3) Dry standard cubic meter

(4) Particulate matter control device

Permit Limits / Standard Summary

10.1 No. 1 Kiln and No. 2 Kiln (Requirements for each kiln)

10.1.1 The PM, PM_{10}, SO_2, NO_x, VOCs, CO emissions, total lead, benzo(a)pyrene, and organic HAPs shall not exceed any corresponding emissions limit listed in Table 10.3.

Table 10.3 KILNS NO. 1 AND NO. 2 EMISSIONS LIMITS

Pollutant		Kiln No. 1	Kiln No. 2	Averaging Period
PM	lb/hr	11.61	16.87	Average, 3 one-hour tests
	T/yr	50.83	73.91	
PM_{10}	lb/hr	9.86	14.34	Average, 3 one-hour tests
	T/yr	43.21	62.82	
SO_2	lb/hr	24	24	Average, 3 one-hour tests
	T/yr	100	100	
NO_x	lb/hr	144	193	12-month rolling average
	T/yr	576	751	
VOC	lb/hr	5.92	6.96	Average, 3 one-hour tests
	T/yr	25.9	30.5	
CO	lb/hr	234.4	275.8	1-hour average
	T/yr	937.7	1103.2	
Total lead	lb/hr	0.27	0.31	Average, 3 one-hour tests
	T/yr	1.08	1.24	
BAP	lb/hr	8.5E-3	1.0 E-2	Average, 3 one-hour tests
	T/yr	3.4 E-2	4.0 E-2	
Organic HAPs	T/yr	9.9		12-month rolling average

[Tier II Permit No. 005-00004, Conditions 2.1.1, 2.1.2, 12/8/97; Consent Order, Condition 21, 6/10/02]

10.1.2 Visible emissions shall not exceed 20% opacity.

[Tier II Permit No. 005-00004, Condition 2.1.3, 12/8/97; 40 CFR 60.62]

10.2 No person shall emit to the atmosphere from any process or process equipment commencing operation prior to October 1, 1979, PM in excess of the amount shown by the following equations, where E is the allowable emissions from the entire source in pounds per hour, and PW is the process weight in pounds per hour.

a. If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.60}$$

b. If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

[IDAPA 58.01.01.702, 4/5/00]

10.3 No owner or operator of an existing kiln at a facility that is an area source subject to the provisions of 40 CFR 63 Subpart LLL shall cause to be discharged into the atmosphere from these affected sources any gases which contain D/F in excess of the following:

(1) 0.20 ng per dscm (8.7×10^{-11} gr per dscf)(TEQ) corrected to 7% oxygen; or

(2) 0.40 ng per dscm (1.7×10^{-10} gr per dscf)(TEQ) corrected to 7% oxygen, when the average of the performance test run average temperatures at the inlet to the PM control device is 204°C (400°F) or less.

[40 CFR 63.1343(d)]

10.4 No owner or operator subject to the provisions of 40 CFR 60 Subpart F shall cause to be discharged to the atmosphere from any kiln any gases which contain PM in excess of 0.15 kg per metric ton of feed (dry basis) to the kiln (0.30 lb per ton).

[40 CFR 60.62, Consent Order, Condition 9A, 6/10/02]

Operating Requirements

10.5 Fuel Usage

10.5.1 The No. 1 and No. 2 kilns shall burn coal, natural gas, whole tire/tire derived fuel, petroleum coke, or used oil which meets the requirements of Permit Conditions 10.5.4, 10.5.5, and 10.10.

10.5.2 The tire feed rate to each kiln shall not exceed 500 lb/hr based upon a 12-month rolling average.

10.5.3 Coal burned in the No. 1 and No. 2 kilns shall contain no greater than 1% sulfur by weight in accordance with IDAPA 58.01.01.729.

10.5.4 Used oil burned in the No. 1 and No. 2 kilns shall contain no greater than five parts per million of polychlorinated biphenyls in accordance with IDAPA 58.01.01.164.01.

10.5.5 Used oil burned in the No. 1 and No. 2 kilns shall not exceed 25% of the kilns' fuel requirement on a British thermal unit basis.

10.5.6 Whole tire/TDF burned in the kilns shall not exceed the following quantities:

- 25% of the No. 1 kiln's fuel requirement on a British thermal unit basis (Btu's), or the percentage of whole tire/TDF burned during the source test conducted to demonstrate compliance with Permit Condition 10.1.
- 25% of the No. 2 kiln's fuel requirement on a British thermal unit basis, or the percentage of whole tire/TDF burned during the source test conducted to demonstrate compliance with Permit Condition 10.1.

10.5.7 Used oil and whole tire/TDF shall only be burned in a kiln when the kiln's ESP is operating.

10.5.8 Test burns shall be required should the permittee propose to combust used oil or whole tire/TDF at rates greater than those stated in Permit Conditions 10.5.2, 10.5.5 and 10.5.6. DEQ approval shall be required prior to conducting test burns at fueling rates which exceed permitted rates.

[Tier II Permit No. 005-00004, Condition 4.1, 12/8/97; Consent Order, Condition 21.F, 6/10/02; IDAPA 58.01.01.164.01, 5/1/94; IDAPA 58.01.01.729, 5/1/94]

10.6 The No. 1 kiln shall process no more than 15.4 tons of clinker per hour on an annual average basis, and the No. 2 kiln shall process no more than 19.4 tons of clinker per hour on an annual average basis.

[Tier II Permit No. 005-00004, Condition 4.2, 12/8/97]

10.7 The owner or operator of a kiln subject to a D/F emissions limitation under 40 CFR 63.1343 must operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limit specified in Permit Condition 10.8.

[40 CFR 63.1344(a)]

10.8 The temperature limit for affected sources meeting the limits of Permit Condition 10.7 is determined in accordance with 40 CFR 63.1349(b)(3)(iv).

[40 CFR 63.1344(b)]

Performance Testing Requirements

10.9 Dioxin/Furan

10.9.1 The owner or operator of an affected source subject to this subpart shall demonstrate initial compliance with the emissions limits of 40 CFR 63.1343 using the test methods and procedures in paragraph (b) of this section and 40 CFR 63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs (1) through (10) of this section, as well as all other relevant information. The plan to be followed during testing shall be made available to the Administrator prior to testing, if requested.

(1) A brief description of the process and the air pollution control system

(2) Sampling location description(s)

(3) A description of sampling and analytical procedures and any modifications to standard procedures

(4) Test results

(5) Quality assurance procedures and results

(6) Records of operating conditions during the test, preparation of standards, and calibration procedures

(7) Raw data sheets for field sampling and field and laboratory analyses

(8) Documentation of calculations

(9) All data recorded and used to establish parameters for compliance monitoring

(10) Any other information required by the test method

[40 CFR 63.1349(a)]

10.9.2 The owner or operator of an affected source subject to limitations on D/F emissions shall demonstrate initial compliance with the D/F emissions limit by conducting a performance test using Method 23 of Appendix A to 40 CFR Part 60.

(i) Each performance test shall consist of three separate runs; each run shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with 63.7(e). The duration of each run shall be at least three hours and the sample volume for each run shall be at least 2.5 dscm (90 dscf). The concentration shall be determined for each run and the arithmetic average of the concentrations measured for the three runs shall be calculated and used to determine compliance.

(ii) The temperature at the inlet to the kiln or in-line kiln/raw mill PMCD, and where applicable, the temperature at the inlet to the alkali bypass PMCD, must be continuously recorded during the period of the Method 23 test, and the continuous temperature record(s) must be included in the performance test report.

(iii) One-minute average temperatures must be calculated for each minute of each run of the test.

(iv) The run average temperature must be calculated for each run, and the average of the run average temperatures must be determined and included in the performance test report and will determine the applicable temperature limit in accordance with Permit Condition 10.8 (40 CFR 63.1344(b)).

[40 CFR 63.1349(b)(3)]

10.9.3 Performance tests required under Permit Condition 10.9.2 shall be repeated every 30 months.

[40 CFR 63.1349(d)]

10.9.4 If a source plans to undertake a change in operations that may adversely affect compliance with an applicable D/F standard under 40 CFR 63 Subpart LLL, the source must conduct a performance test and establish new temperature limit(s) as specified in Permit Condition 10.9.2. In preparation for and while conducting a performance test required in this condition, a source may operate under the planned operational change conditions for a period not to exceed 360 hours, provided that the conditions in paragraphs (i) through (iv) of this section are met. The source shall submit temperature and other monitoring data that are recorded during the pretest operations.

(i) The source must provide the Administrator written notice at least 60 days prior to undertaking an operational change that may adversely affect compliance with an applicable standard under 40 CFR 63 Subpart LLL, or as soon as practicable where 60 days advance notice is not feasible. Notice provided under this paragraph shall include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required under this condition, including when the planned operational change period would begin.

(ii) The performance test results must be documented in a test report according to Permit Condition 10.9.1.

(iii) A test plan must be made available to the Administrator prior to testing, if requested.

(iv) The performance test must be conducted, and it must be completed within 360 hours after the planned operational change period begins.

[40 CFR 63.1349(e)]

10.10 Used Oil

10.10.1 Used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment, is subject to regulation under 40 CFR 279 unless it is shown not to exceed any of the allowable levels of the constituents and properties in the specification shown in Table 1. Once used oil that is to be burned for energy recovery has been shown not to exceed any specification, and the person making that showing complies with 40 CFR 279.72, 279.73, and 279.74(b), the used oil is no longer subject to 40 CFR 279.

Table 10.3 Used Oil Not Exceeding Any Specification Level Is Not Subject to 40 CFR 279 When Burned for Energy Recovery[1]

Constituent/property	Allowable level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash point	100°F minimum
Total halogens	4,000 ppm maximum[2]

{1} The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see § 279.10(b)).

{2} Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under § 279.10(b)(1). Such used oil is subject to subpart H of part 266 of this chapter rather than 40 CFR 279 when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

[40 CFR 279.11]

10.10.2 Analysis of Used Oil Fuel

A generator, transporter, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of Permit Condition 10.10.1 by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.

[40 CFR 279.72(a)]

10.10.3 Record Retention

A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the specifications for used oil fuel under Permit Condition 10.10.1 must keep copies of analyses of the used oil (or other information used to make the determination) for three years.

[40 CFR 279.72(b)]

10.10.4 On-specification Used Oil Delivery

A generator, transporter, processor/re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the fuel specifications under Permit Condition 10.10.1 must keep a record of each shipment of used oil to an on-specification used oil burner. Records for each shipment must include the following information:

(1) The name and address of the facility receiving the shipment.

(2) The quantity of used oil fuel delivered.

(3) The date of shipment or delivery.

(4) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under Permit Condition 10.10.2.

(5) Record retention. The records described in paragraph 10.10.4 must be maintained for at least three years.

[40 CFR 279.74(b)]

10.11 Other Tests

10.11.1 The permittee shall conduct compliance tests on kiln No. 1 and kiln No. 2 to verify compliance with SO_2 and benzo(a)pyrene emissions limits in Permit Condition 10.1. The tests shall be performed in accordance with the procedures in Permit Condition 2.15 or a DEQ-approved alternative method, within 180 days of issuance of the permit.

If the emissions rate measured in the initial compliance test is less than or equal to 75% of the emissions standard in Permit Condition 10.1, no further testing shall be required during the life of the permit. If the emissions rate measured during the compliance test is greater than 75%, but less than or equal to 90% of the emissions standard in Permit Condition 10.1, a second test shall be required in the third year of the permit term. If the SO_2 and benzo(a)pyrene emissions rate measured during the compliance test is greater than 90% of the emissions standard in Permit Condition 10.1, the permittee shall conduct a compliance test annually.

[IDAPA 58.01.01.322.09, 5/1/94]

10.11.2 The permittee shall demonstrate compliance with the organic HAP and VOC emissions limitation by performing annual EPA Method 25A compliance tests on kiln No. 1 and kiln No. 2 while burning tires. The annual compliance tests will develop emissions factors for each kiln to be used during the following 12-month period to determine compliance with the annual emissions limitation for total organic HAPs from the kilns. Annual organic HAP emissions from the kilns shall be determined by the following equations:

Kiln No. 1

Kiln No.1 organic HAP emissions (T/yr) = [Kiln No. 1 emissions rate (lb/hr, Method 25A)/Kiln No.1 tire feed rate during test (T/hr)] x [rolling 12 month Kiln No.1 tire feed (lb/yr)/2000]

Kiln No. 2

Kiln No.2 organic HAP emissions (T/yr) = [Kiln No.2 emissions rate (lb/hr, Method 25A)/Kiln No.2 tire feed rate during test (T/hr)] x [rolling 12 month Kiln No.2 tire feed (lb/yr)/2000]

Total kiln organic HAP emissions (T/yr) = Kiln No.1 organic HAP emissions (T/yr) + Kiln No.2 organic HAP emissions (T/yr)

[Consent Order, Condition 21H, 6/10/02]

10.11.3 The following operating data shall be recorded during each performance test:

- Amount of material fed (dry basis)
- Type and amount of fuels used
- Multiclone pressure drop

[Tier II Permit No. 005-00004, Condition 3.5.1, 12/8/97; IDAPA 58.01.01.322.09, 5/1/94]

10.11.4 During the performance test, the following operating parameters for each field in each chamber of the ESP shall be recorded:

- Primary voltage
- Primary current
- Secondary voltage
- Secondary current
- Pressure drop
- Rapper intensity and frequency

[Tier II Permit No. 005-00004, Condition 3.5.2, 12/8/97; IDAPA 58.01.01.322.09, 5/1/94]

Monitoring & Recordkeeping Requirements

10.12 The permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of operating parameters for the No.1 and No.2 kilns. The following operating parameters shall be monitored and recorded while each kiln is operating:

- Daily summary of the amount of material fed to each kiln (dry basis)
- Daily production rates
- Daily summary of the type and amount of fuels used

[Tier II Permit No. 005-00004, Condition 3.1, 12/8/97; 40 CFR 60.63(a)]

10.13 The permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of operating parameters for each field in each chamber of the No.1 and No.2 kiln ESPs. The following operating parameters shall be monitored and recorded once per day while each kiln is operating:

- Primary voltage
- Primary current.
- Secondary voltage.
- Secondary current.
- Pressure drop.
- Rapper intensity and frequency.
- The time when these parameters were monitored.

[Tier II Permit No. 005-00004, Condition 3.2, 12/8/97]

10.14 When used oil is being used as fuel, the permittee shall have the used oil certified by the supplier and abide by the recordkeeping and analytical requirements, as required under Permit Condition 10.10.

[Tier II Permit No. 005-00004, Condition 3.3, 12/8/97]

10.15 When coal is being used as fuel, the permittee shall have the coal sampled and analyzed by the supplier for total sulfur and shall maintain records of this data on a monthly basis.

[Tier II Permit No. 005-00004, Condition 3.4, 12/8/97]

10.16 The permittee shall record, in a monthly report, the information requested in Permit Conditions 10.12, 10.13, 10.14, 10.15.

[Tier II Permit No. 005-00004, Condition 5.2, 12/8/97]

10.17 The owner or operator of each Portland cement plant shall prepare for each affected source subject to the provisions of 40 CFR 63 Subpart LLL, a written operations and maintenance plan. The plan shall be submitted to the Administrator for review and approval as part of the application for a part 70 permit, and shall include the following information:

(1) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits of 40 CFR 63.1343 through 63.1348;

(2) Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year

[40 CFR 63.1350(a)]

10.17.1 Failure to comply with any provision of the operations and maintenance plan developed in accordance with Permit Condition 10.17 shall be a violation of the standard.

[40 CFR 63.1350(b)]

10.17.2 The owner or operator of an affected source subject to a limitation on D/F emissions shall monitor D/F emissions in accordance with the following:

1) The owner or operator shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to, or upstream of, the kiln, in-line kiln/raw mill and/or alkali bypass PM control devices.

   (i) The recorder response range must include zero and 1.5 times either of the average temperatures established according to the requirements in 40 CFR 63.1349(b)(3)(iv).

   (ii) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.

2) The owner or operator shall monitor and continuously record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to the kiln, in-line kiln/raw mill and/or alkali bypass PMCD.

3) The three-hour rolling average temperature shall be calculated as the average of 180 successive one-minute average temperatures.

4) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.

5) The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months.

[40 CFR 63.1350(f)]

10.17.3 The owner or operator of any kiln or in-line kiln/raw mill subject to a D/F emissions limit under 40 CFR 63 Subpart LLL shall conduct an inspection of the components of the combustion system of each kiln or in-line kiln raw mill at least once per year.

[40 CFR 63.1350(i)]

10.18 Nitrogen Oxide Continuous Emission Monitoring

The permittee shall install, calibrate, and operate a continuous emissions monitoring system (CEMS) to monitor and record the rate of NO_x emissions from the ESP stack on Kilns No. 1 and 2. The NO_x CEMS shall use a span appropriate for the actual NO_x concentration in the emissions from Kilns No. 1 and 2. The NO_x CEMS shall be used directly for determining compliance with NO_x emissions limitations. In addition, the permittee shall comply with the following terms and conditions as related to the NO_x CEMS:

1) The NO_x CEMS shall be operated in compliance with all applicable provisions of 40 CFR 60.13.

2) The installation and initial performance evaluation of the NO_x CEMS shall be done in accordance with 40 CFR 60, Appendix B, and Performance Specification 2. Ash Grove shall conduct the initial performance evaluation no later than 180 days from the effective date of this Consent Order. The results of the initial performance evaluation shall be submitted for DEQ approval within 30 days of completion of the evaluation. If DEQ does not find the results of the initial performance evaluation acceptable, Ash Grove shall repeat the performance evaluation. The initial performance evaluation shall be completed to DEQ's satisfaction no later than January 6, 2003.

3) The NO_x CEMS shall comply with the quality assurance requirements specified in 40 CFR 60, Appendix F.

4) The permittee shall maintain a file containing measurement data and related information for the NO_x CEMS. The data and information in the file shall include, but not be limited to, all CEMS output data, copies of all performance evaluation reports, daily calibration drift check data, written quality control procedures, documentation of all adjustments and maintenance on the NO_x CEMS and copies of all information required to be submitted to DEQ regarding the NO_x CEMS. The contents of the file shall be recorded in a permanent form suitable for inspection and shall be retained at the facility for at least five years following the date on which the data or information were recorded. The file shall be made available to DEQ representatives upon request.

[Consent Order, Condition 7, 6/10/02]

10.19 Carbon Monoxide Continuous Emission Monitoring

The permittee shall install, calibrate, and operate a CEMS to monitor and record the rate of CO emissions from the ESP stack on Kilns No. 1 and 2. The CO CEMS shall use a span appropriate for the actual CO concentration in the emissions from Kilns No. 1 and 2. The CO CEMS shall be used directly for determining compliance with CO emissions. In addition, the permittee shall comply with the following terms and conditions as related to the CO Continuous Emission Monitoring:

1) The CO CEMS shall be operated in compliance with the applicable provisions of 40 CFR 60.13.

2) The installation and initial performance evaluation of the CO CEMS shall be done in accordance with 40 CFR 60, Appendix B, and Performance Specification 4. Ash Grove shall conduct the initial performance evaluation no later than 180 days from the effective date of this Consent Order. The results of the initial performance evaluation shall be submitted for DEQ approval within 30 days of completion of the evaluation. If DEQ does not find the results of the initial performance evaluation acceptable, Ash Grove shall repeat the performance evaluation. The initial performance evaluation shall be completed to DEQ's satisfaction no later than January 6, 2003.

3) The CO CEMS shall comply with the quality assurance requirements specified in 40 CFR 60, Appendix F.

4) The permittee shall maintain a file containing measurement data and related information for the CO CEMS. The data and information in the file shall include, but not be limited to, all CEMS output data, copies of all performance evaluation reports, daily calibration drift check data, written quality control procedures, documentation of all adjustments and maintenance on the CO CEMS and copies of all information required to be submitted to DEQ regarding the CO CEMS. The contents of the file shall be recorded in a permanent form suitable for inspection and shall be retained at the facility for at least five years following the date on which the data or information were recorded. The file shall be made available to DEQ representatives upon request.

[Consent Order, Condition 8, 6/10/02]

10.20 Compliance Assurance Monitoring

The permittee shall demonstrate compliance with the kiln PM emissions by following the approved PM Compliance Demonstration Plan in Appendix C. The content of the PM Compliance Demonstration Plan may only be modified with written approval of DEQ. Any such approved modification shall not require modification this permit but shall be a fully enforceable term of the permit.

[Consent Order, Condition 11, 6/10/02]

10.21 Compliance Date

The compliance date for an owner or operator of an existing affected source subject to the provisions of Subpart LLL is June 14, 2002.

[40 CFR 63.1351(a)]

10.22 Recordkeeping

(a) The owner or operator shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained onsite. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

(b) The owner or operator shall maintain records for each affected source as required by 40 CFR 63.10(b)(2) and (b)(3).

(1) All documentation supporting initial notifications and notifications of compliance status under 40CFR 63.9.

(2) All records of applicability determination, including supporting analyses.

(3) If the owner or operator has been granted a waiver under 40 CFR 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.

(c) In addition to the recordkeeping requirements in paragraph (b) of this section, the owner or operator of an affected source equipped with a continuous monitoring system shall maintain all records required by 40 CFR 63.10(c).

[40 CFR 63.1355]

10.23 Each owner or operator of a kiln that is subject to the provisions of 40 CFR 60 Subpart F shall install, calibrate, maintain, and operate in accordance with §60.13, a continuous opacity monitoring system to measure the opacity of emissions discharged to the atmosphere from any kiln. A continuous opacity monitoring system shall be installed on each stack of any multiple stack device controlling emissions from any kiln. If there is a separate bypass installed, each owner or operator of a kiln shall also install, calibrate, maintain, and operate a continuous opacity monitoring system on each bypass stack in addition to the main control device stack. Each owner or operator of an affected kiln for which the performance test required under § 60.8 has been completed on or prior to December 14, 1988, shall install the continuous opacity monitoring system within 180 days after December 14, 1988.

[40 CFR 60.63(b)]

10.23.1 For the purpose of reports under §60.65, periods of excess emissions that shall be reported are defined as all six-minute periods during which the average opacity exceeds that allowed by §60.62(a)(2) or §60.62(b)(2).

[40 CFR 60.63(d)]

10.24 The owner or operator shall determine compliance with the PM standard in 40 CFR 60.62 as follows:

(1) The emissions rate (E) of PM shall be computed for each run using the following equation:

$$E = C_s Q_{sd} / (PK)$$

where:

E = emissions rate of PM, kg/metric ton (lb/ton) of kiln feed
c_s = concentration of PM, g/dscm (gr/dscf)
Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr)
P = total kiln feed (dry basis) rate, metric ton/hr (ton/hr)
K = conversion factor, 1000 g/kg (7000 gr/lb)

(2) Method 5 shall be used to determine the PM concentration (c_s) and the volumetric flow rate (Q_{sd}) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30.0 dscf) for the kiln.

(3) Suitable methods shall be used to determine the kiln feed rate (P), except fuels, for each run. Material balance over the production system shall be used to confirm the feed rate.

(4) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

[40 CFR 60.64(b)]

Reporting

10.25 Each owner or operator subject to the requirements of this subpart shall comply with the notification requirements in 40 CFR 63.9 as follows:

(1) Notification of performance tests, as required by §63.7 and 63.9(e)

(2) Notification, as required by 40 CFR 63.9(g), of the date that the continuous emissions monitor performance evaluation required by 40 CFR 63.8(e) is scheduled to begin

(3) Notification of compliance status, as required by 40 CFR 63.9(h)

[40 CFR 63.1353(b)]

10.26 The reporting provisions of Subpart A of 40 CFR 63 that apply and those that do not apply to owners or operators of affected sources subject to Subpart LLL are listed in Table 1 of Subpart LLL. Subpart A requirements are listed in Appendix A. If any State requires a report that contains all of the information required in a report listed in this section, the owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

[40 CFR 63.1354(a)]

10.26.1 The owner or operator of an affected source shall comply with the reporting requirements specified in 40 CFR 63.10 of the general provisions of Part 63, Subpart A as follows:

(1) As required by 40 CFR 63.10(d)(2), the owner or operator shall report the results of performance tests as part of the notification of compliance status.

(2) Not applicable.

(3) As required by 40 CFR 63.10(d)(4), the owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under 40 CFR 63.6(i) shall submit such reports by the dates specified in the written extension of compliance.

(4) As required by 40 CFR 63.10(d)(5), if actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan specified in 40 CFR 63.6(e)(3), the owner or operator shall state such information in a semiannual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports.

(5) Any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the owner or operator shall make an immediate report of the actions taken for that event within two working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the owner or operator or other responsible official, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

(6) As required by 40 CFR 63.10(e)(2), the owner or operator shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by 40 CFR 63.8(e). The owner or operator shall submit the report simultaneously with the results of the performance test.

(7) As required by 40 CFR 63.10(e)(2), the owner or operator of an affected source using a continuous opacity monitoring system to determine opacity compliance during any performance test required under 40 CFR 63.7 and described in 40 CFR 63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under 40 CFR 63.8(e).

(8) As required by 40 CFR 63.10(e)(3), the owner or operator of an affected source equipped with a continuous emissions monitor shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emissions limitation or operating parameter limit.

(9) The owner or operator shall submit a summary report semiannually which contains the information specified in 40 CFR 63.10(e)(3)(vi). In addition, the summary report shall include:

(i) All exceedances of maximum control device inlet gas temperature limits specified in 40 CFR 63.1344(a) and (b).

(ii) All failures to calibrate thermocouples and other temperature sensors as required under 40 CFR 63.1350(f)(7).

(iii) The results of any combustion system component inspections conducted within the reporting period as required under 40 CFR 63.1350(i).

(iv) All failures to comply with any provision of the operation and maintenance plan developed in accordance with 40 CFR 63.1350(a).

(10) If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is 10% or greater of the total operating time for the reporting period, the owner or operator shall submit an excess emissions and continuous monitoring system performance report along with the summary report.

[40 CFR 63.1354(b)]

10.27 Except as provided in paragraph (1) of this section, any affected source subject to the provisions of Subpart LLL is exempted from any otherwise applicable new source performance standard contained in 40 CFR Part 60, Subpart F or Subpart OOO.

(1) Kilns and in-line kiln/raw mills, as applicable under 40 CFR 60.60(b), located at area sources are subject to PM and opacity limits and associated reporting and recordkeeping, under 40 CFR part 60, Subpart F.

[40 CFR 63.1356(a)]

10.28 Each owner or operator required to install a continuous opacity monitoring system under § 60.63(b) shall submit reports of excess emissions as defined in § 60.63(d). The content of these reports must comply with the requirements in § 60.7(c). Notwithstanding the provisions of § 60.7(c), such reports shall be submitted semiannually.

[40 CFR 60.65(a)]